Partial Listings

(12) **United States Patent**

Danieli

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(54) **SECURITY SERVICES AND POLICY ENFORCEMENT FOR ELECTRONIC DATA**

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(58) Field of Search 713/155, 156, 713/160, 164, 165, 166, 167, 175, 176, 178, 179, 181, 193, 201; 705/1, 51, 52, 53; 380/279

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(57) **ABSTRACT**

Security services and policy enforcement for electronic data is provided through a series of transactions among a server and clients using electronic security certificates. A first client generates a digest from the electronic data, and submits a security certificate request containing the digest to a trusted arbitrator server, where the request is time stamped and logged. The trusted arbitrator authenticates the first client's credentials and returns the security certificate to the first client. The data and security certificate are combined to create a distribution unit. A second client acquires the distribution unit, extracts the security certificate, and generates a digest from the data. If the digest from the second client matches the logged digest from the first client, the data is valid. Depending on the certificate type and policy level, the trusted arbitrator server provides other services to the clients, such as notification of improper user of the data.

29 Claims, 23 Drawing Sheets
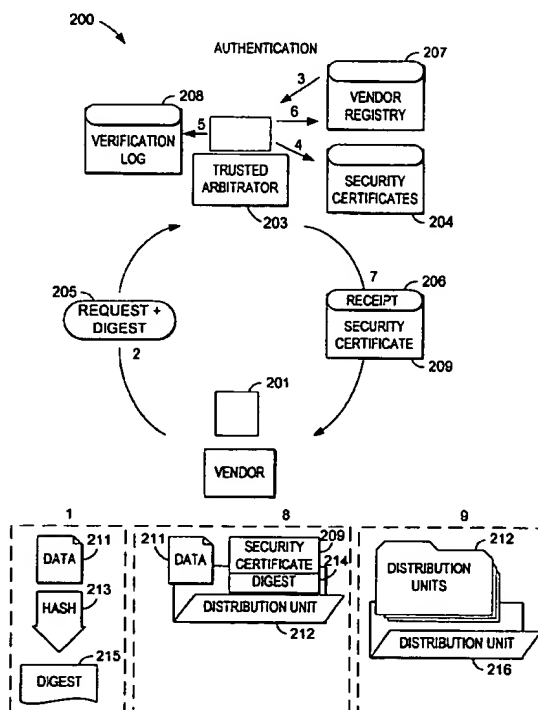
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See image for Certificate of Correction

TITLE: Security services and policy enforcement for electronic
            data

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Detailed Description Text - DETX (48):
   The system level overview of the operation of exemplary embodiments of the
invention has been described in this section of the detailed description. A
series of transactions among parties that provide security services and policy
enforcement for the distribution and use of electronic data has been described.
For sake of clarity a simplified version of protecting software applications
distributed across the Internet has been described. The invention is not,
however, limited to use in distributing computer software across a network but
will be immediately perceived as applicable to any exchange of files or
documents which must be authenticated or validated in some fashion, such as
legal papers, **tax filings,** employment records, or the like. Furthermore,
although the distribution unit used for illustrative purposes in this section
contains a single distribution unit, the ability to have multiple distribution
units in a distribution unit, or to nest distribution units is also
contemplated by the invention.

Current US Original Classification - CCOR (1):
   713/156